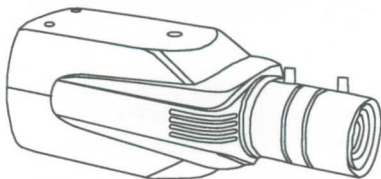


Day & Night Digital Camera User' Manual



Features

- This camera adopt high sensitive color Sony EX-View HAD CCD, provides high resolution, high sensitivity and high contrast picture, ensure good identification in all circumstances.
- The camera provides automatic mode changeover by sensing day or night conditions. It can change color mode in the day condition to optimal color and B/W mode in night condition for clear identification.
- Auto Electronic Shutter and Automatic Gain Control.
- Automatic White Balance ,Back Light Compensation.
- Use Auto-Iris lens of standard 4-pin connector.
- User friendly back-focus adjustment.
- Automatic synchronization to local mains with AC power.
- Low voltage and mains voltage models, The camera can be supplied with either low voltage or AC powered.

Ver:4-48/C-05XEB

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Servicing: Do not attempt to service this product yourself as removing covers expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel .

Damage requiring service: Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a)When the power supply cord or plug is damaged.
- b)If liquid has been spilled or objects have fallen into the product.
- c)If the products have been exposed to rain or water.
- d)If the products haven't operated normally by following the instructions.
- e)If the products have been dropped or damaged in any part.
- f)When the product exhibits distinct change in performance .Any of above situation indicates a need for service.

Replacement parts: when replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part, unauthorized substitutions may result in fire, electric shock, or other hazards.

Safety Check: Upon completion of any service or repairs to this product , ask the service technician to perform safety checks to determine that the products is in proper operating condition.

Heat: The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products(including amplifiers) that produce heat.

SAFETY PRECAUTIONS

Warning: To prevent fire or shock hazard, do not expose camera or monitor to rain or moisture.



The lightning flash with arrowhead symbol, within a triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure; that may be of sufficient magnitude to constitute a risk of electric shock to persons.



To reduce the risk of electric shock, do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.



The exclamation mark within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

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Warning

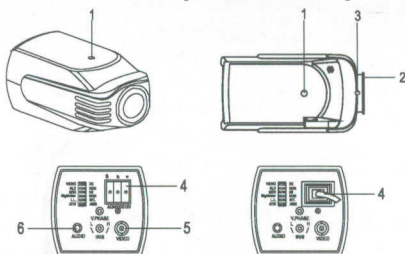


1. Do not expose the camera to humidity and dust. If camera is mounted outdoor, camera housing is required.
2. Handle with care. This camera consists of sensitive high precision parts. Do not disassemble it or place it on an unstable base.
3. Do not touch the surface of CCD sensor by hand directly. When the camera is not in use, put the cover cap on the lens mount.
4. This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

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Parts and Purpose Descriptions



1. Use one of the screw holes to mount the camera.
2. The camera is equipped with a standard CS-mount. For C-mount lens, an optional C to CS adapter-ring must be used.
3. Back-focus locking screw. (must be released before adjusting the back focus)
4. Power input.
5. Video signal output (75 Ω impedance).
6. Audio signal output (optional).

Accessories



L Wrench



Auto Iris connector



adapter-ring

5. Never face the camera toward the sun.
6. Use Auto-iris lens or N.D filter or set large F number of manual lens when in high light intensity, in order to protect the sensitive CCD sensor.

2 Important Safety Instructions

Read instruction: All safety and operating instructions should be read before the product is operated.

Retain instruction: The safety and operating instructions should be retained for future reference.

Head Warning: All warnings on the product and in the operating instructions should be paid attention to.

Follow instructions: All operating and user instructions should be followed.

Cleaning: Unplug this product from the outlet before cleaning.

water&Moisture: Do not use this product near water such as bath tub, wash, bowl, kitchen sink, laundry tub; do not use it in a wet basement, or near a swimming pool.

Power Cord Protection: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed on or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

Lightning: For added protection for these products during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet.

Object & Liquid Entry: Never push objects of any kind into this product through openings as they may touch dangerous voltage points or Short-out parts that could result in a fire or electric shock, never spill liquid of any kind on the product.

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4 Installation Instructions

1. Remove the cover cap from the top of lens mount.
2. The camera is equipped with a standard CS-mount. For C-mount lens, an optional C to CS adapter-ring must be used.
3. Screw the lens firmly onto the lens mount.

4. Power input

A. Low voltage

Connect the AC 24V or DC12V Power source to the power input terminals.

- a: positive (+) wire for DC, any supply wire for AC.
- b: negative (-) wire for DC, other supply wire for AC.
- c: $\varnothing$ safety ground (voltage from any supply wire should be less than 50V)

B. Mains voltage

Connect this power cord to an electrical outlet of 110VAC/220VAC 60Hz/50Hz.

5. Connect the video output of the camera to a monitor or other video device through a 75 Ω type coaxial cable with BNC female connector at camera end.
6. Once the image appears on the monitor, adjust the focus and diaphragm of the lens to obtain the best picture.

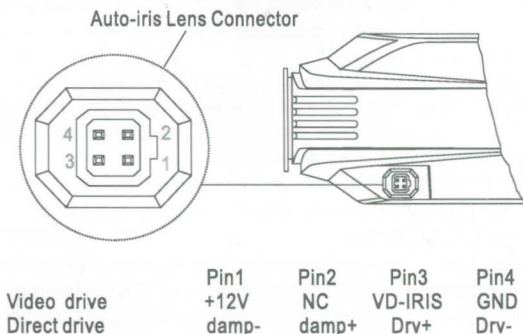
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7. If the subject is not in focus, adjust as following:
 - a. Set the focus ring of the lens to infinity position.
 - b. Take picture of subject at a distance more than 20mm away from the camera.
 - c. Loosen the lens mount fixing screw located at bottom of the front panel by using the L wrench supplied.
 - d. Turn the lens and the mount together so the subject is in focus.
 - e. Make sure the lens mount fixes screw firmly again.

5 Special Feature

(1) Auto Iris lens

For this camera, please use auto lens, wire the cable of lens to Mini Plug according to the following table:



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occur. If so, each time you switch the monitor to another camera, the video picture will be unsynchronized for a short period (rolling picture). By means of the V-phase adjustment, you can synchronize the camera.

7 LENSES

The camera is provided with a standard CS-mount. Therefore, a wide range of lenses can be used. For example:

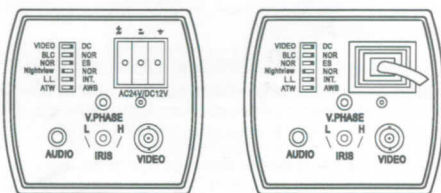
- a. fixed iris lenses
- b. manual iris lenses
- c. DC auto-iris lenses
- d. Video auto-iris lenses

Notes

1. For indoor use, you can use a fixed iris lens. For outdoor application, a DC or Video auto-iris lens is recommended.
2. Try to avoid bright light sources in the camera's field of view when you use a fixed iris lens. They may cause smear in the picture. When you use a DC or Video auto-iris lens, the smear will be reduced.
3. When you use a DC or Video iris lens, it is recommended to set the Auto Electronic Shutter (ES switch) to the "OFF" position.
4. When an C/CS-mount adapter (optional) is used, C-mount lenses can also be applied.

8 Technical Specifications

6 Adjustment



Figure

(1). IRIS switch

Set this switch to 'DC' when using a DC iris lens.

Set this switch to 'VIDEO' when using a Video iris lens

Set the ES switch to 'NOR' when a DC or Video iris lens is used.

(2). Back Light Compensation

When BLC is turned on, the AGC, ES and IRIS operating point is determined by averaging over the center area instead of entire field-of-view, so that a dimly-lit back-grounds from brightly-lit .

BLC should not be used unless it is needed to compensate for back-light.

(3). Electronic Shutter

ES ON: Continuously adjust the shutter speed from 1/60(NTSC),

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Type	Color camera
Image Sensor	1/3" Sony EX-View IT CCD (SONY)
Signal System	PAL or NTSC System
Effective Pixels	PAL:500(H)×582(V), NTSC:510(H)×494(V)
Resolution	420TVLines
Minimum Illumination	0.01Lux/F1.2(0LUX with IR)
Day/Night Automatically Switch	Illumination<1-3Lux/F1.2
S/N Ratio	More than 48dB
Electronic Shutter	1/50~1/100,000sec(PAL), 1/60~1/100,000sec(NTSC)
BLC	ON/OFF
NightView	ON/OFF
White Balance	ATW/AWB
Auto Iris	DC/VIDEO
Gamma Correction	0.45
Sync Mode	LL /INT
Lens Mount	CS/C with Ring
Video Output	1.0Vp-p 75 Ohm, sync negative polarity
Audio Output	Optional
Power Consumption	3W(MAX)
Power supply	Low Voltage:DC12V / AC24V Main Voltage:90~240VAC
Operation Temperature	-10℃~+50℃ Rh95% MAX
Dimension	121×62×60(mm)
Camera Mount	Two 1/4 " 20 UNC (bottom and top)
Weight	500g

All data subject to change without notice.

1/50(PAL) second to 1/100,000 second according to the luminance conditions of the scene.

ES OFF: The shutter speed is fixed at 1/60(NTSC), 1/50(PAL) second.

Set ES off, when auto iris lens is used or flicker is observed under a very bright fluorescent lamp. Otherwise, turn ES on for optimum performance.

(4) NightView

NightView ON: NightView extends the low-light performance of the camera. The camera increases sensitivity automatically at low illumination. The camera automatically switch from color to high sensitive B/W at night.

NOR: A nature and low-noise picture is obtained under low light.

(5) Synchronization

Select 'LINE LOCK' to synchronize with the power supply frequency. Select 'INTERNAL' for use with internal synchronization (selected with DC supply).

(6) White Balace

ATW: Auto tracking white balance allows the camera to constantly adjust for optimal color reproduction.

AWB: Automatic white balance control is provided between 2700K to 10,000K and fixes it.

(7) Iris level adjustment

To adjust the brightness of the image when a DC iris lens is used.

(8) V-phase adjustment (only functional when the camera is AC-powered)

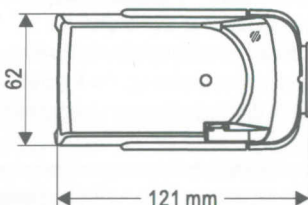
When more cameras are connected to different AC power groups and share the same monitor, video recorder, etc, AC phase differences may

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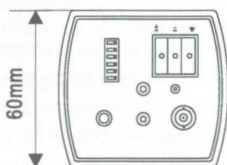
Type number overview

Model	Color1	Color2	Color3	Color4
Rated voltage	12VDC 24VAC 50HZ	12VDC 24VAC 60HZ	AC90V-240V 50HZ	AC90V-240V 60HZ
Signal system	PAL	NTSC	PAL	NTSC

9 Dimension Outline



Bottom view



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